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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL PERMIT

PERMIT NO.: 1984-EP-2981

DATE ISSUED: March 5, 1984

FINAL PLANS, SPECIFICATIONS, APPLICATION  
AND SUPPORTING DOCUMENTS  
PREPARED BY: Monsanto Company

LOG NUMBERS: 2981-83

SUBJECT: MONSANTO COMPANY - ChlorAlkali Phase II Rehabilitation - Sauget - (Sauget Wastewater Treatment Plant) - Industrial Pretreatment

PERMITTEE TO OPERATE  
Monsanto Company  
Route 3  
Sauget, Illinois 62201

Permit is hereby granted to the above designated permittee to operate water pollution control facilities described as follows:

The AKZO pretreatment system for the removal of mercury from wastewater.

The daily average flow of 0.13 MGD and daily maximum flow of 0.216 MGD is discharged into the sewer system of the Village of Sauget.

This Operating Permit expires on January 31, 1989.

This Permit renews and replaces Permit Number 1978-EE-2347 which was previously issued for the herein permitted facilities.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

RECEIVED  
Ill. Environmental Protection Agency

Continued on Page 2

MAR 13 1984

Division of Water Pollution Control  
Field Operations Section — Reg. VI

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

TGM:RAE/hy/04400/S-0  
cc: EPA - Region 6  
Village of Sauget  
Records Unit  
Permit Section

DIVISION OF WATER POLLUTION CONTROL

Thomas P. McSwiggin, P.E.  
Manager, Permit Section

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL PERMIT

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PREPARED BY: Monsanto Company

SUBJECT: MONSANTO COMPANY - ChlorAlkali Phase II Rehabilitation - Sauget - (Sauget Wastewater Treatment Plant) - Industrial Pretreatment

SPECIAL CONDITION 1: All sludges generated on site shall be disposed of at a site and in a manner acceptable to the Agency.

SPECIAL CONDITION 2: The issuance of this permit does not relieve the permittee of the responsibility of complying with 35 Ill. Adm. Code, Part 307 and/or the General Pretreatment Regulations (40 CFR 403) and any guidelines developed pursuant to Section 301, 306, or 307 of the Federal Clean Water Act of 1977.

SPECIAL CONDITION 3: The amount of mercury discharged by this facility shall not exceed an average of 114 g/day (0.25 lb/day) during any calendar month and maximum of 227g (0.5 pounds) during any one day.

STATE OF ILLINOIS  
ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357  
ADM 39  
054-002

Subject Monsanto - W. G. Krummrich Plt. - Sargent

Date log # 2981-83

Reviewed by Ray Ehrhard

Date 2/2/84

- Application to renew operating permit # 1978-EE-2347 for the Chlor-Alkali Pretreatment Facility. The Facility was originally permitted on Nov 27, 1978 for the removal of mercury.
- Application submitted 12/15/83 did not have signature from Sargent or complete information on Hg discharge. I called Steve Smith of Monsanto to request this information.
- Additional information received 2/16/84. All signatures complete on Form WPC-95-1.
- Review to renew operation permit is to make sure applicable standards are being met.
- Site Specific Rule for this discharge Section 304.202 states standard as follows for Hg:  

Ave 0.25 lb/day  
Max 0.5 lb/day
- Information submitted shows that the ave load discharge from August 83 - Jan 84 have met this standard. There is no information in the Division File which would show any problems with this discharge.
- Federal limits: Inorganic Chemicals 415.64 PDES for Chlor-alkali mercury cells Reserved
- Action: Reissue Permit for 5 years  
CONDITIONS: All original conditions should be included in this renewal plus the following
  - Complying with pretreatment regulations and standards
  - meet requirements of Section 304.202 for Hg

DWPC FACT SHEET AND MEMORANDUM

DATE: 12/16/82

TO: \_\_\_\_\_ DAPC  
\_\_\_\_\_ DLPC  
\_\_\_\_\_ DPWS

FROM: RAY FURBER DWPC CONTACT PERSON

SUBJECT: Candidate for Coordinated Permit Review Log# 2981-83  
Monanto - SAUGET  
Name of Project \_\_\_\_\_ Project Location or Site \_\_\_\_\_

On 12/16/82, \_\_\_\_\_ (called/submitted application) which indicated they would be a potential candidate for a coordinated permit review for this project. A basic description of the project is as follows:

>10,000 P.E. ☐, Contains Toxics.....☐ Source of Waste = APC Device.....☐  
Storage of Haz. or Toxic Wastes.....☐ LPC Facility.....☐  
Facility Treats Haz. or Toxic Wastes.....☐ PWS Facility.....☐  
Sludge Produced - other Permits may be required ☐  
NOTE: PLEASE RESPOND BY   /  /  .

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TO: \_\_\_\_\_ DWPC

FROM: \_\_\_\_\_ D \_\_\_\_\_ CONTACT PERSON

For Our Division This Project

Is Significant.....☐  
Is Not Significant.....☐  
Requires Permits.....☐  
Does Not Require Permits....☐  
Attach comments if necessary

(FOR DWPC USE ONLY - CHECK HERE IF NOT SUBJECT TO CROPA ☒)

BL:bv/sp/3118C/1  
(Revised 1/83)

*Checked w/ Dick Forbes 3/2/84 - no problem  
w/ Issing. Monanto has offer pending*

# Monsanto

298/A-83

**RECEIVED**

MONSANTO INDUSTRIAL CHEMICALS CO.  
Sauget, Illinois 62201  
Phone: (618) 271-5835

FEB 16 1984

February 10, 1984

Environmental Protection Agency  
WPC—Permit Log In

Ray Erhardt  
Water Permits Division  
Illinois Environmental Protection Agency  
2200 Churchill Road  
Springfield, IL 62706

CERTIFIED MAIL: 2388376

Dear Mr. Erhardt:

Attached please find a copy of our recent Chlor-Alkali Pretreatment Permit Request signed by the Sauget Wastewater Treatment Plant's Manager.

During your recent call, you requested analysis information concerning mercury discharged from the Monsanto Plant. The following is the average mercury discharge analysis for the last six months. These values are typical of our Plant's operation.

January 1984	.08 lb/da.	average
December 1983	.12 "	"
November 1983	.11 "	"
October 1983	.10 "	"
September 1983	.07 "	"
August 1983	.11 "	"

The standard change for our Chlor-Alkali facilities is incorporated into the Sauget Treatment Plant's NPDES Permit, with a five times per week mercury monitoring requirement. These results are on file with your office.

Sincerely,



Steven D. Smith

SDS/jc  
Attachment

# Monsanto

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MONSANTO INDUSTRIAL CHEMICALS CO.  
Sauget, Illinois 62201  
Phone: (818) 271-5835

December 8, 1983

Mr. Jerry Siekerka  
Division of Water Pollution Control  
Permit Section  
2200 Churchill Road  
Springfield, IL 62706

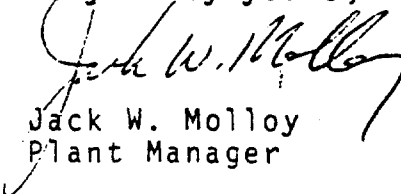
Dear Mr. Siekerka:

Attached is our renewal request for an Industrial Pretreatment Operating Permit for our Chlor-Alkali Akzo Resin Treatment System. Flow diagrams for the system and operation description are as described in our original construction/operation permit (Permit No. 1978-EE-2347).

The treatment system has worked extremely well over the past three years. No changes in the operation of this department are planned.

Your approval of this Operating Permit Renewal is respectfully requested.

Very truly yours,

  
Jack W. Molloy  
Plant Manager

JWM/jc  
Attachment

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

FOR DEPA USE:  
LOG #  
DATE RECEIVED:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
PERMIT SECTION  
Springfield, Illinois 62706

APPLICATION FOR PERMIT OR CONSTRUCTION APPROVAL

WPC-PS-1

1. NAME AND LOCATION:

Name of project: Chlor-Alkali Phase II Rehabilitation  
Municipality or Township Village of Sauget County St. Clair

2. BRIEF DESCRIPTION OF PROJECT: Project will remove mercury from waste waters before discharge per proprietary technology purchased from Akzo.

3. DOCUMENTS BEING SUBMITTED: If the project involves any of the items listed below, submit the corresponding schedule, and check the appropriate spaces.

PROJECT

Private Sewer Connection . . . . .	A	Spray Irrigation . . . . .	H
Public Sewer Extension . . . . .	B	Septic Tanks . . . . .	I
Sewer Extension Construct Only . . . . .	C	Industrial Treatment or Pretreatment . . . . .	J
Sewage Treatment Works . . . . .	D		
Excess Flow Treatment . . . . .	E	Cyanide Acceptance . . . . .	L
Lift Station/Force Main . . . . .	F	Updating Cyanide Acceptance Form . . . . .	M
Sludge Disposal . . . . .	G	Waste Characteristics . . . . .	N <input checked="" type="checkbox"/>

LAND TRUST: Is the project identified in item number 1 herein, for which a permit is requested, to be constructed on land which is the subject of a trust? Yes No  
If yes, item number 6.1.1 herein must be signed by a beneficiary, trustee or trust officer, and a trust disclosure must be submitted (see instructions, item 3).

Plans: Title Refer to the original permit application of November, 1978.

Number of Pages                     

Specifications: Title                      Number of Books/Pages                     

Other Documents (Please Specify)                     

4. THIS IS AN APPLICATION FOR (CHECK):

☐ A. Joint Construction And Operating Permit  
☐ B. Authorization To Construct (See Instructions) NPDES Permit No. IL00                      Issue Date                       
☒ C. Construct Only Permit (Does Not Include Operations)  
☒ D. Operate Only Permit (Does Not Include Construction)

5. CERTIFICATIONS AND APPROVAL:

5.1 Certificate by ~~Design~~ Engineer

I hereby certify that I am familiar with the information contained in this application, including the attached schedules indicated above, and that to the best of my knowledge and belief such information is true, complete and accurate. The plans and specifications (specifications other than Standard Specifications or local specifications on file with this Agency) as described above were prepared by me or under my direction.

ENGINEER S. D. Smith E-19399 (Mo.)                      SEAL  
NAME REGISTRATION NUMBER

FIRM Monsanto Company

ADDRESS Route 3, Sauget, Illinois 62201

PHONE NUMBER 618-271-5835

SIGNATURE Stan D Smith 12/8/83

6. CERTIFICATIONS AND APPROVALS FOR PERMITS:

6.1 Certificate by Applicant(s)

I/we hereby certify that I/we have read and thoroughly understand the conditions and requirements of this Application, and am/are authorized to sign this application in accordance with the Rules and Regulations of the Illinois Pollution Control Board.  
I/we hereby agree to conform with the Standard Conditions and with any other Special Conditions made part of this Permit.

In addition, I/we hereby certify that (a) I/we have secured all necessary zoning approvals from the unit of local government having zoning jurisdiction over the proposed facility, or (b) that said facility complies with local zoning requirements and further approval is not required, or (c) no unit of local government has zoning jurisdiction over the proposed facility.

6.1.1 NAME OF APPLICANT FOR PERMIT OR AUTHORIZATION TO Operate  
~~CONSTRUCT~~ Monsanto Company, Route 3, Sauget, Illinois 62201

STREET                      CITY                      STATE                      ZIP CODE                     

SIGNATURE                      12/12/83

TITLE                      ORGANIZATION Monsanto Company

6.1.2 NAME OF APPLICANT FOR PERMIT TO OWN AND OPERATE

Monsanto Company

Route 3,

Sauget,

Illinois

62201

STREET

CITY

STATE

ZIP CODE

SIGNATURE Plant Manager

TITLE \_\_\_\_\_

6.2 Attested (Units of Government)

DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

(CITY CLERK, VILLAGE CLERK, SANITARY DISTRICT CLERK, ETC.)

6.3 Applications from non-governmental applicants which are not signed by the owner, must be signed by a principal executive officer of at least the level of vice president, or his duly authorized representative.

## 6.4 CERTIFICATE BY INTERMEDIATE SEWER OWNER

I hereby certify that (Please check one):

1. The sewers to which this project will be tributary have adequate reserve capacity to transport the wastewater that will be added by this project without causing a violation of the Environmental Protection Act or Chapter 3, Illinois Pollution Control Board Rules and Regulations, or
2. The Illinois Pollution Control Board, in PCB \_\_\_\_\_ dated \_\_\_\_\_, granted a variance from Chapter 3 to allow construction and operation of the facilities that are the subject of this application.

Name and location of sewer system to which this project will be tributary:

SEWER SYSTEM OWNER \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP CODE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

TITLE \_\_\_\_\_

6.5 CERTIFICATE BY WASTE TREATMENT WORKS ~~OWNER~~ Manager

I hereby certify that (Please check one):

1. The waste treatment plant to which this project will be tributary has adequate reserve capacity to treat the wastewater that will be added by this project without causing a violation of the Environmental Protection Act or Chapter 3, Illinois Pollution Control Board Rules and Regulations, or
2. The Illinois Pollution Control Board, in PCB \_\_\_\_\_ dated \_\_\_\_\_, granted a variance from Chapter 3 to allow construction and operation of the facilities that are the subject of this application.

I also certify that the industrial waste discharges described in the application is capable of being treated by the treatment works, and such waste discharges will be in compliance with all currently applicable local, state or federal pretreatment requirements.

Name and location of waste treatment works to which this project will be tributary:

Sauget Wastewater TreatmentTREATMENT WORKS OWNER Village of Sauget10 Mobile Street, Sauget,Illinois62201

STREET \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP CODE \_\_\_\_\_

SIGNATURE [Signature]DATE 2/13/84TITLE Plant Manager



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
PERMIT SECTION  
Springfield, Illinois 62706

SCHEDULE N WASTE CHARACTERISTICS

1. Name of Project Chlor-Alkali Phase II Rehabilitation, Mercury Recovery

2. FLOW DATA

EXISTING

PROPOSED-DESIGN

2.1 Average Flow (gpd)

130,000

130,000

2.2 Maximum Daily Flow (gpd)

216,000

216,000

2.3 TEMPERATURE

Time of year	Ave. Intake Temp. F	Avg. Effluent Temp. F	Max. Intake Temp. F	Max. Effluent Temp. F	Max. Temp. Outside Mixing Zone F
SUMMER	<u>90</u>	<u>90</u>	<u>      </u>	<u>      </u>	<u>      </u>
WINTER	<u>85</u>	<u>85</u>	<u>      </u>	<u>      </u>	<u>      </u>

2.4 Minimum 7-day, 10-year flow: N/A cfs        MGD.

2.5 Dilution Ratio: N/A ;       

2.6 Stream flow rate at time of sampling        cfs .130-.216 MGD.

3. CHEMICAL CONSTITUENT Existing Permitted Conditions        ; Existing conditions        ; Proposed Permitted Conditions        .

Type of sample:        grab (time of collection       ) ; ☒ composite (Number of samples per day 1)

(see instructions for analyses required)

Constituent	RAW WASTE (mg/l)	TREATED EFFLUENT Avg. (mg/l) Max.	UPSTREAM DOWNSTREAM SAMPLES (mg/l) (mg/l)
Ammonia Nitrogen (asN)	-	-	
Arsenic (total)	-	-	
Barium	-	-	
Boron	-	-	
BOD <sub>5</sub>	-	-	
Cadmium	-	-	
Carbon Chloroform Extract	-	-	
Chloride	-	-	
Chromium (total hexavalent)	-	-	
Chromium (total trivalent)	-	-	
Copper	-	-	
Cyanide (total)	-	-	
Cyanide (freely released @ 50°F & pH 4.5)	-	-	
Dissolved Oxygen	-	-	
Fecal Coliform	-	-	

[illegible]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL PERMIT

PERMIT NO.: 1978-EE-2347

DATE ISSUED: November 27, 1978

FINAL PLANS, SPECIFICATIONS, APPLICATION  
AND SUPPORTING DOCUMENTS

LOG NUMBERS: 2347-78

PREPARED BY: Monsanto - Sauget (Sauget Waste Water Treatment Plant)

SUBJECT: CHLOR-Alkali Phase II Rehabilitation - Pretreatment Facility

PERMITTEE TO CONSTRUCT, OWN &amp; OPERATE

Monsanto Company

Route 3

Sauget, Illinois 62201

RECEIVED  
REGION

DEC 6 1978

Permit is hereby granted to the above designated permittee(s) to construct and/or operate water pollution control facilities described as follows:

The AKZO treatment for the removal of mercury from waste water consisting of three processes:

1. The oxidation of metallic mercury by chemical additives.
2. The removal of excess oxidant by chemical additives and carbon adsorption.
3. The removal of  $Hg^{++}$  and  $HgCl^+$  ions through the reaction with the resin to form an insoluble organometallic compound.

The carbon and resin beds of 165 cu/ft. each will provide an average retention time of 14.5 minutes.

The daily average flow of .13 MGD and daily maximum flow of .215 MGD is discharged into the sewer systems of the Village of Sauget.

This Operating Permit expires on November 24, 1983.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: An application for sludge disposal must be made 90 days prior to the time it becomes necessary to dispose of sludge.

SPECIAL CONDITION 2: "The permittee shall allow any agent duly authorized by the Agency upon the presentation of credentials:

Continued on Page 2

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE OF THIS PERMIT (PAGE 1a) MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

DIVISION OF WATER POLLUTION CONTROL

TGM:MAS:dw/5537/L 2

cc: EPA - Region IV

M. R. Foresman (Monsanto Company)

Records Unit/Division File

Thomas G. McSwiggin, P.E.  
Manager, Permit Section

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
WATER POLLUTION CONTROL PERMIT

PERMIT NO.:

1978-EE-2347

DATE ISSUED:

November 27, 1978

FINAL PLANS, SPECIFICATIONS, APPLICATION  
AND SUPPORTING DOCUMENTS

LOG NUMBERS: 2347-78

PREPARED BY:

Monsanto - Sauget (Sauget Waste Water Treatment Plant)

SUBJECT:

CHLOR-Alkali Phase II Rehabilitation - Pretreatment Facility

- a. to enter at reasonable times the permittee's premises where actual or potential effluent, emission, or noise sources are located or where any activity is to be conducted pursuant to this permit.
- b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit.
- c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit.
- d. to obtain and remove at reasonable times sample of any discharge or emission of pollutants.
- e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity discharge, or emission authorized by this permit.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE OF THIS PERMIT (PAGE 1a) MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

DIVISION OF WATER POLLUTION CONTROL

  
Thomas G. McSwiggin, P.E.  
Manager, Permit Section

# Monsanto

COMPANY

Sargent, L.T. 82201  
Phone #18 271-5035

July 23, 1968

Mr. Robert Schleuger  
Public Health Lab  
414 Missouri Avenue  
East St. Louis, Illinois

Dear Mr. Schleuger:

I have enclosed all the recent data on test wells in the Monsanto Company sanitary landfill. A map is also attached locating each of the five wells.

It must be noted that Well No. 1 was contaminated a few years ago when rain water carried liquid chemicals into the top of the well casing. Since this time extensions have been made to all well casings eliminating this possible contamination source. The results from Test Well No. 1 do show a steady decline in phenol concentration.

Also, the analysis method used at our plant continuously measures 2 mg/l higher than other analysers. This has been checked by splitting samples with both your lab in Springfield and a local testing laboratory.

When further sampling is done by our pollution control group, the results will be forwarded.

Sincerely,

*M. A. Pierle*  
M. A. Pierle

Jp

Enc.

C.C. Ernest Bennett  
Ill. Sanitary Water Board  
C. F. Buckley, W.G. Krummrich